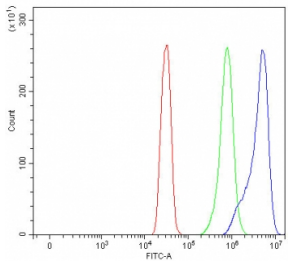
APLP1 Polyclonal Antibody / Amyloid Beta Precursor-Like Protein 1 Antibody (RQ8086)

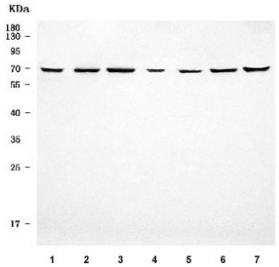
Catalog No.	Formulation	Size
RQ8086	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P51693
Applications	Western blot: 0.5-1ug/ml Flow cytometry: 1-3ug/million cells Direct ELISA: 0.1-0.5ug/ml
Limitations	This APLP1 Polyclonal Antibody / Amyloid Beta Precursor-Like Protein 1 Antibody is available for research use only.



APLP1 Polyclonal Antibody by FACS in Human SiHa Cells. Flow cytometry analysis of fixed and permeabilized human SiHa cells using Amyloid Beta Precursor-Like Protein 1 Antibody at 1 ug per million cells following blocking with goat serum. The histogram shows cells alone (red), isotype control (green), and antibody-stained cells (blue). The rightward fluorescence shift relative to the isotype control indicates detectable APLP1 immunoreactivity.



APLP1 Polyclonal Antibody by WB in Human, Rat and Mouse Lysates. Western blot analysis using Amyloid Beta Precursor-Like Protein 1 Antibody. Lane 1: human SH-SY5Y cells; Lane 2: human U-87 MG cells; Lane 3: rat brain; Lane 4: rat liver; Lane 5: rat RH35 cells; Lane 6: mouse brain; Lane 7: mouse Neuro-2a cells. A prominent band is detected at approximately 70 kDa across all seven samples, consistent with the predicted molecular weight of APLP1 (~72 kDa). Glycosylation can result in higher apparent molecular weights for this protein.

Description

APLP1 Polyclonal Antibody / Amyloid Beta Precursor-Like Protein 1 Antibody recognizes amyloid beta precursor-like protein 1, a neuronal membrane glycoprotein belonging to the amyloid precursor protein family. Encoded by the APLP1 gene, this protein is closely related to amyloid precursor protein (APP) and amyloid precursor-like protein 2 (APLP2). Although these proteins share conserved structural domains and overlapping biological functions, APLP1 exhibits a predominantly neuronal expression pattern and contributes to specialized processes involving synaptic organization, neuronal adhesion, and intercellular communication.

APLP1 is a type I transmembrane protein containing a large extracellular domain, a single membrane-spanning region, and a relatively short cytoplasmic tail. Its extracellular region supports interactions with neighboring cells and other membrane-associated proteins. APLP1 can participate in homophilic adhesion, in which molecules on adjacent cell surfaces interact with one another. These interactions have been implicated in neuronal contact formation and the maintenance of synaptic architecture. The protein also participates in complexes involving intracellular adaptor proteins that influence trafficking and signaling.

Like other APP family members, APLP1 undergoes regulated proteolytic processing. Secretase-mediated cleavage releases soluble extracellular fragments and generates membrane-associated products that may undergo additional processing. APLP1 differs from APP because it lacks the amyloid-beta peptide sequence associated with amyloid plaque formation. Nevertheless, its shared structural features and processing pathways make it relevant to investigations of APP family biology, membrane protein turnover, and neuronal signaling. Post-translational modifications, particularly glycosylation, contribute to the maturation and electrophoretic migration of APLP1.

APLP1 has been investigated for its involvement in synaptic function, neurite development, and neuronal protein trafficking. Studies of APP family proteins suggest that their overlapping activities contribute to nervous system development and neuronal viability. The effects of individual family members can be difficult to distinguish because related proteins may compensate for one another. APLP1 also interacts with proteins involved in intracellular transport and membrane organization, supporting its role in coordinating neuronal structure and communication.

Research into APLP1 continues to explore its contribution to synaptic stability, neuronal connectivity, and the biological functions of amyloid precursor protein family members. Understanding its expression and processing may provide additional insight into mechanisms regulating neuronal membrane proteins. NSJ Bioreagents offers this APLP1 Polyclonal Antibody to support studies of APLP1 expression, protein maturation, and its relationship to neuronal adhesion and synaptic organization.

For additional research into amyloid precursor-like protein family signaling and neuronal adhesion, explore our APLP1 Antibody (R31208), which provides complementary validation data for investigating APLP1 expression.

Application Notes

Optimal dilution of the APLP1 Polyclonal Antibody / Amyloid Beta Precursor-Like Protein 1 Antibody should be determined by the researcher.

Immunogen

E. coli-derived recombinant human protein (amino acids Q55-Q566) was used as the immunogen for the APLP1 Polyclonal Antibody.

Storage

After reconstitution, the APLP1 Polyclonal Antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Amyloid Precursor-Like Protein 1 antibody, APP-Like Protein 1 antibody, Amyloid Precursor Protein Homolog APLP1 antibody

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